

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD CENTRAL VALLEY REGION

STAFF REPORT ON THE PROPOSED SETTLEMENT/AMENDED CLEANUP AND ABATEMENT ORDER LODI CENTRAL PLUME AREA; LODI, SAN JOAQUIN COUNTY

SUMMARY

The Board adopted a Cleanup and Abatement Order (CAO No. R5-2004-0043) at its meeting on April 22, 2004 requiring parties responsible for the discharge of the solvent tetrachloroethene, also known as perchloroethene (PCE), to cleanup groundwater in the Central Plume Area of the City of Lodi. The Dischargers named in the CAO include the City of Lodi (City), Guild Cleaners, Inc. (Guild), the Lodi News Sentinel, the Oddfellows Association (Oddfellows), and Beckman Capital Corporation (Beckman). A copy of the CAO is included with this staff report as Attachment A.

Petitions for State Board review of the CAO were filed by the City, Lodi News Sentinel, Beckman and Oddfellows. The City requested that their petition be held in abeyance and the State Board dismissed the petitions of the other Dischargers. The Lodi News Sentinel then sued the Regional Board but did not serve the petition. The Lodi News Sentinel, Fred Weybret and the Central Valley Water Board settled the dispute, and Lodi News Sentinel will dismiss the lawsuit once its settlement with the City of Lodi becomes final.

In a case that predates the issuance of the CAO, the City has pursued legal action in federal court against the other Dischargers at the Central Plume Area. (*City of Lodi v. M&P Investments, et al.*, E.D. Cal. Case No. CIV S-00-2441.) Recently, the City has entered into settlement agreements with the other Central Plume defendants. The settlements collectively will create a \$9,575,000 fund to be used for investigation and remediation of the pollution in the Central Plume Area. As that amount is not adequate to effectively remediate the pollution in the Central Plume Area, the City would assume responsibility for providing the necessary additional funds. The settlements are contingent upon the Central Valley Water Board and the Department of Toxics Substances Control providing the non-City Dischargers with covenants-not-to-sue (CNS) and releasing them from obligations under the CAO.

Regional Board staff has been working with the City, the Lodi News Sentinel and Guild Cleaners to structure an agreement to present to the Board for implementation of the Settlements. As a result of those efforts, Regional Board staff now brings a proposal for the Board's consideration that would authorize the Executive Officer to act on the Board's behalf in entering into the following agreements and perform the following actions:

- An agreement with the City of Lodi whereby the City agrees to complete all investigation and cleanup of the contamination at the Central Plume Area in accordance with the CAO and to assume the other parties' liability to comply with the CAO (a copy of the proposed agreement is included as Attachment B), and
- Grant CNS's to the non-City Dischargers (a copy of the proposed CNS for Guild Cleaners is included as Attachment C).

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Should the Board decide to proceed with these agreements, the CAO would have to be amended to remove the non-City Dischargers (following court approval of the City-Discharger settlements). Also, at the time of amendment, the work and schedule in the CAO would need to be updated.

INTRODUCTION

The City of Lodi relies on groundwater as its sole source of drinking water. In the late 1980's, the volatile organic compounds (VOCs) tetrachloroethene, also known as perchloroethene (PCE) and trichloroethene (TCE) were discovered in two drinking water supply wells. In the early 1990's, investigations conducted by the Regional Water Quality Control Board (Regional Board) under the Well Investigation Program revealed areas where VOCs from dry cleaning and other operations were disposed to the sewer. Regional Board Staff concluded that the VOCs leaked from the sewer to the soils and groundwater.

The contamination in the City has been divided into five separate areas or zones. The Regional Board is addressing four of the zones under actions separate from the CAO. The fifth, and by far the most polluted, is the Central Plume Area where past operations of dry cleaning facilities and a printing plant resulted in discharges of PCE to the soils and to the City's sewer lines, which subsequently released PCE to the soils and groundwater.

At its meeting on April 22, 2004, the Board adopted Cleanup and Abatement Order No. R5-2004-0043, requiring the Central Plume Area Dischargers to cleanup groundwater in the Central Plume Area of the City of Lodi. Following the issuance of the CAO, DTSC and the Board agreed to designate the Board as lead for all Lodi groundwater plumes.

Over the past year, the Dischargers have made progress under the CAO. Specifically, the Dischargers have:

1. Investigated the extent of the indoor air impacts near the source of the plume,
2. Investigated the extent of the groundwater plume, installed a monitoring well network and completed two quarters of groundwater monitoring,
3. Conducted additional source area investigations, and
4. Prepared a draft Remedial Investigation/Feasibility Study document and draft Risk Assessment

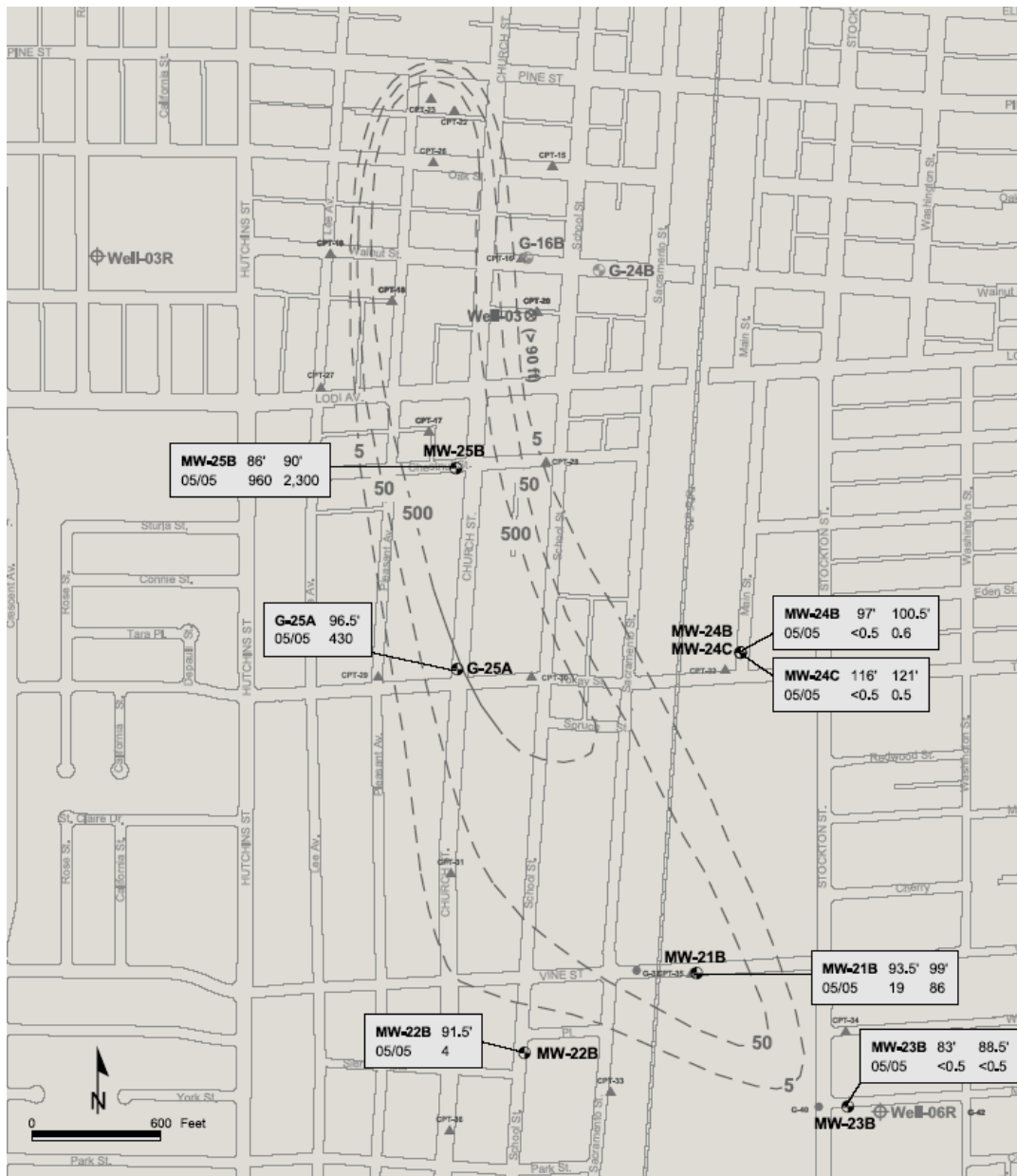
A brief summary of the results of the investigations listed above is as follows:

- The indoor air of residences and businesses in close proximity to the source area is adversely affected at levels that exceed acceptable long-term health-based levels. Short-term, acute health-based levels were not exceeded.
- The extent of the groundwater pollution in the Central Plume Area is greater than previously thought. The pollution under the source area extends to about 200 feet deep. The pollution has traveled nearly a mile down gradient and is impacting a water supply well. The levels in the well, at this time, are below the maximum contaminant limit (MCL) but are above the public health goal (PHG) for PCE.

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The following figure shows the extent of the groundwater plume in the intermediate groundwater zones between 75 and 125 feet below ground surface:



**EXTENT OF GROUNDWATER PLUME
 (75 to 125 feet below ground surface)**

THE CENTRAL PLUME AREA SETTLEMENTS

As described earlier, the City has reached settlements with the other Central Plume Area responsible parties. The settlements generally involve the City's assumption of the responsibility for compliance with the CAO in exchange for a cash payment from the other Dischargers.

The amounts that the Dischargers will contribute to fund the investigation and remediation of the site is as follows:

- City of Lodi	\$2,200,000
- Guild Cleaners ¹	\$4,200,000
- Lodi New Sentinel	\$2,000,000
- Oddfellows	\$1,000,000
- Beckman Capital	<u>\$ 175,000</u>
TOTAL	\$9,575,000

By the City's estimates, this amount will be more than sufficient to cover the capital costs of the remedial actions for the Central Plume Area, which are estimated to be about \$3.3 million. This amount is about \$6 million less than the estimated overall costs when operation and maintenance is included. However, nearly \$9,000,000 of the total remedial costs, estimated to be \$15.8 million, will be operation and maintenance costs that will be spread over a period of 30 years. The City could raise this amount with a modest rate increase, or could use general funds.

The City's Conceptual Remedial Plan

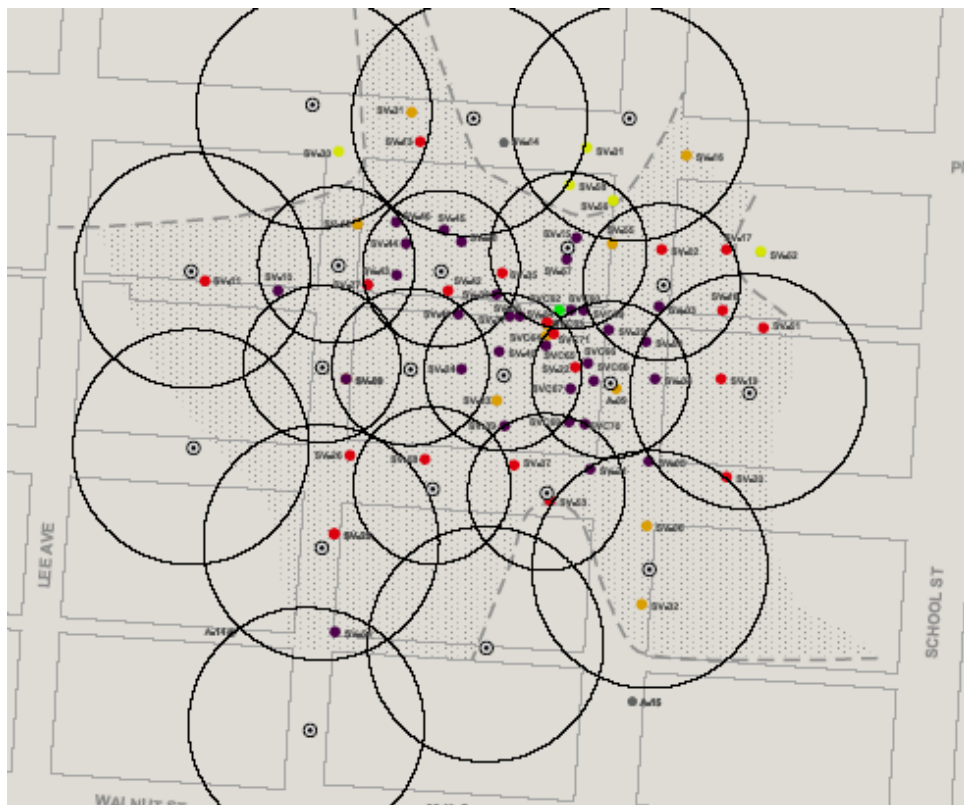
In support of its cost estimates and plan to fund the Central Plume Area remediation, the City prepared the conceptual remedial plan presented below.

- Source Area Soil Remediation

The PCE in the heavily contaminated source area would be removed by soil vapor extraction (SVE). The conceptual design includes 10 nested SVE points in the alleyway where the contamination was released and 15 additional SVE points in other locations so as to provide complete coverage of the known, shallow PCE vapor plume to 5 µg/l. Estimated operational time of the SVE system is 5 years. Regional Board staff concurs that SVE is likely to be employed in the source area and in a similar fashion as proposed to remove residual PCE from the vadose zone. SVE has the additional benefit of preventing the migration of PCE vapors into the indoor air of nearby residences and business. Also, SVE works in tandem with air sparging of groundwater (also, part of the plan, see below). Regional Board staff

¹ The CAO named Guild Cleaners, Inc. and the Estate of Dwight Alquist. The Guild CNS also includes Jack Alquist, individually and as a Trustee of the Alquist Family Trust, dated March 2, 1981; the Alquist Family Trust, dated March 2, 1981; and Beulah Viva Alquist, individually and as a Trustee of Alquist Family Trust, dated March 2, 1981. These individuals and trusts were named as defendants in the *M&P Investments* litigation. Jack Alquist is the current shareholder of Guild Cleaners, Inc. His father, Dwight Alquist, operated Guild as well as the former Flair Cleaners. All Alquist/Guild parties are collectively referred to as "Guild."

does note, however, that the operational period for the portion of the system in the alleyway may be longer than 5 years. The conceptual layout of these systems is depicted below:



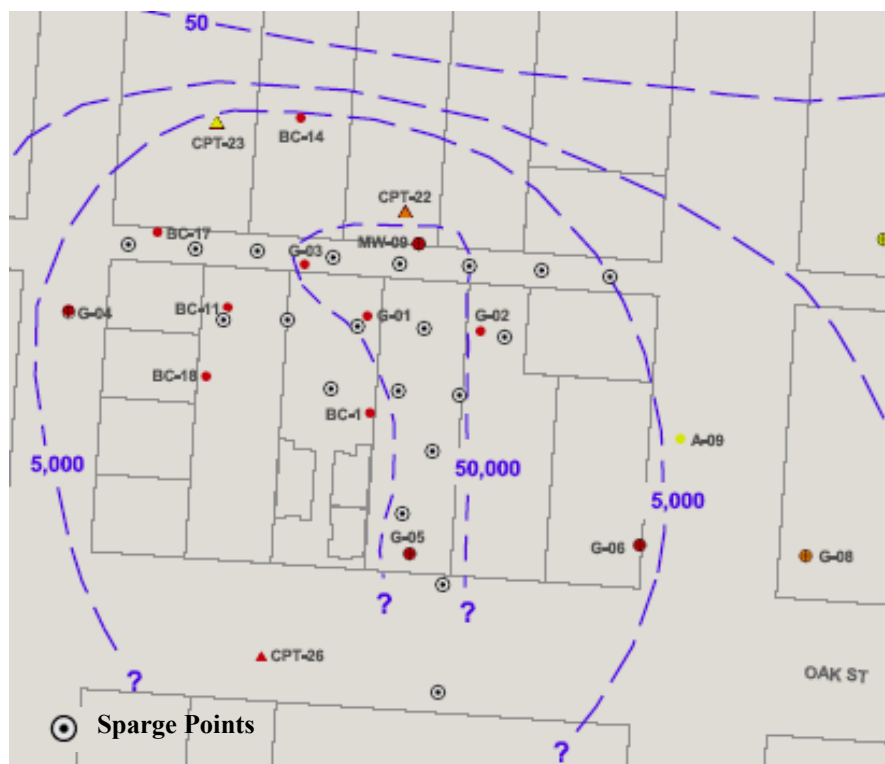
Soil Vapor Extraction System Layout

- Source Area Groundwater Remediation

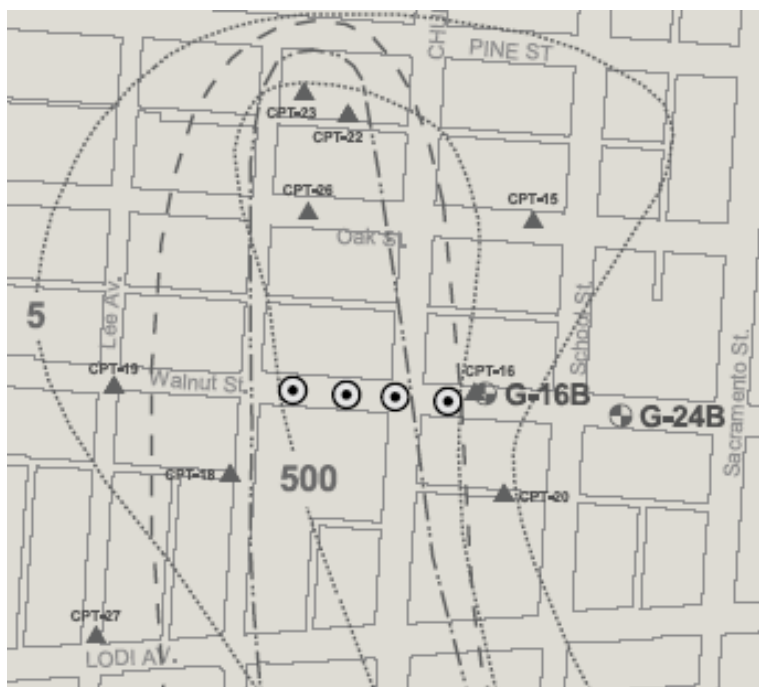
The City's conceptual remedial plan for contaminant source area groundwater remediation includes the emplacement of 20 air sparge points into the groundwater in the area of highest groundwater contamination levels. The sparge points will be used to inject air into the groundwater. PCE in the groundwater will transfer into the air that will then be captured by the SVE system. The City estimates that the operation and maintenance period for this system will be five years. Regional Board staff concurs with the City in that air sparging is a cost-effective method of removing contamination from the source groundwater. However, air sparging will not provide complete remediation of the source area groundwater and therefore the City conceptual remediation plan also includes a long-term, groundwater extraction and treatment system near the source area. The City estimates that four extraction well locations will be needed. Each extraction well location would have two wells; one to extract deep groundwater (to 150 feet below ground surface) and one to extract shallower groundwater. This operation and maintenance period for system is estimated at 30 years. The air sparge and groundwater systems are shown on the following two figures:

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Air Sparge Points in Relation
 PCE Contamination Levels in Groundwater



Groundwater Extraction Points

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- The final element of the City's conceptual remedial plan is to treat the extracted groundwater at Municipal Supply Well 06R, located at the toe of the groundwater plume. Wellhead treatment is not the quickest or most efficient method of groundwater cleanup. Nor is it clear that wellhead treatment at 06R would effectively capture the groundwater plume. Even though Regional Board staff is disinclined, at this time, to concur with wellhead treatment as the preferred remedial option for the down gradient plume, under the City's cost estimate, wellhead treatment costs about the same at the near-source pump and treat system. Thus wellhead treatment can be viewed as place holder, at present, with costs that are in the range of other remedies that may be preferable.

In sum, Regional Board staff concurs with the elements and scope of the City's conceptual remedial plan for the purposes of preparing a cost estimate for remediation of the Central Plume Area. It should be noted however, that the actual remedial actions to be taken at the Central Plume Area will be selected at a later date, in accordance with the requirements of Chapter 6.8 of the California Health and Safety Code. Likewise, system designs and operational parameters will also be determined at a later date. As such, the actual remedial costs may be higher than those estimated by the City. However, the initial funding contains an adequate amount for substantial additional capital costs and, as previously mentioned, because operation and maintenance costs are spread over several decades, the impact of additional operation costs to any potential increase in utility rates is likely to be marginal.

Partial Settlements with Guild, Oddfellows, and Beckman

The settlements with Guild, Oddfellows and Beckman will only partially fund the cleanup. As a condition to this "partial settlement", the Dischargers should demonstrate that they possess limited assets and be willing to contribute those assets towards cleanup.

In this case, Dischargers Guild, Oddfellows and Beckman are not believed to possess assets that are significant, relative to the insurance policies that are the source of their respective contributions to the settlement with the City.

Guild has insurance policies providing substantial "excess" coverage that would be triggered upon the exhaustion of the underlying coverage. The contribution by Guild does not include amounts under the excess coverage policies, but reportedly does include at least the policy limits of all underlying coverage. A pertinent consideration on this issue is that ultimately, under these agreements, the City bears the risk that the settlements do not provide adequate funds. In addition, Guild was involved in coverage litigation with its carriers. The settlements eliminate any risks of Guild losing the \$4.2 million in insurance coverage if the carriers prevailed in litigation.

Lodi News Sentinel – CNS Contingent Upon City Compliance with CAO

The Lodi News Sentinel settlement with the City was also contingent upon receipt of a CNS from the State. The Board has already completed this settlement. A copy of the signed agreement is included with this Staff Report as Attachment D.

REVISIONS TO THE CLEANUP AND ABATEMENT ORDER

If the Board resolves to enter into the agreement with the City and grant the non-City Dischargers CNS's, and following the final court approval of the City-Discharger settlements, the CAO will need to be revised to remove the non-City Dischargers from the Order.

Also, Regional Board staff will be working with the City to prepare a plan wherein the appropriate cleanup measures are selected and implemented in a timely fashion, using the funds resulting from the settlements. It is expected that the plan and schedule will be incorporated into the CAO at the same time the Order is revised. The plan and schedule are likely to require revision from time to time as the work progresses.

CONCLUSION

Regional Board staff recommends that the Regional Board adopt the Resolution accompanying this staff report. The Resolution authorizes the Executive Officer to enter into an agreement with the City of Lodi wherein the City assumes the responsibilities of the other Dischargers under the CAO. That agreement requires the City to dismiss its petition to the State Board for review of the CAO and would resolve all issues in the petition.

The Resolution also authorizes the Executive Officer to grant covenants-not-to-sue to Guild Cleaners, Oddfellows Hall Association and Beckman Capital Corporation to effectuate the settlement reached between the parties in the *City of Lodi v. M&P Investments* case. The settlement will make \$5,375,000 million immediately available (in addition to the \$4,200,000 contributions from the Lodi News Sentinel and the City) for the much needed remediation of the Lodi Central Plume Area and end years of very costly litigation between the parties.

Lastly, the Resolution directs the Executive Officer to revise the Lodi Central Plume Cleanup and Abatement Order to remove the non-City Dischargers at such time as the settlements become final. The Cleanup and Abatement Order would also be revised by Executive Officer to incorporate a plan and schedule for selecting and implementing cleanup actions. The Executive Officer would be authorized to revise the plan and schedule as necessary.